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ADDITIONS TO THE AVIFAUNA OF NORTHERN ANGOLA II

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INTRODUCTION

The present publication is a continuation of the report published in *Postilla* no. 47, 1960. It refers to the same collection, procured by Mr. and Mrs. Heinrich for the Peabody Museum during the course of their expedition to Angola in 1957-1958.

We are indebted to Mr. Melvin H. Traylor, Chicago Natural History Museum, who has examined and compared some of the specimens treated in this publication and whose comments have been most valuable to us. His current "*Check-List of Angolan Birds*" (1963) is the most definitive present paper on the area.

We should like to express here our deeply felt gratitude to Mrs. Hildegard H. Heinrich during the expedition. Her courage and fortitude were admirable in spite of having had to undergo a major operation shortly after the arrival of the expedition in Luanda.

We should like to express our thanks, also, for the generous hospitality and assistance granted to the expedition by the administration of the Diamond Company of Angola.

In the following annotated list, additional species of birds new to Angola or extensions of range are listed along with noteworthy

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ecological notes, or descriptions of voice or breeding condition. We have not listed a summary of all the species taken by the Heinrichs. For a map see p. 3, as well as our previous paper (1960).

ANNOTATED LIST

Sarothrura rufa rufa (Vieillot)

MATERIAL. Southern Lunda, Cacolo, 1400 m alt—1 ♂ ad, 1 ♀ ad.

In contrast to *Sarothrura pulchra australis* Neumann, this species avoids wooded areas. Its habitat is restricted to open, swampy or marshy belts at river sides or along brooks, wherever dense cover of grass and rank low vegetation exists. Where the same brook runs through open areas and tropical gallery wood, the two rails, *rufa* and *pulchra*, will be found alternately according to the habitat.

The specimens listed above were trapped with nets in a small area of reeds on separate days. During this time their voices could be heard and noted. There were three different calls. One is a rather deep, drumming sound, like "w ú k - w ú k - w ú k - w ú k - w ú k . . ." It was often answered by another note, perhaps five tones higher, clearer and more lengthened "ú k - ú k - ú k - ú k - ú k . . ." Sometimes a soft, somewhat throaty "k é i - k é i - k é i - k é i - k é i . . ." was heard.

Sarothrura pulchra centralis Neumann, 1908.

This species inhabits the damp tropical rain forests of the lowlands, wherever the deeply shadowed floor of the jungle is covered by a thicket of low vegetation such as ferns or other big-leaved plants. It is found as well in extended patches of jungle such as in narrow belts of tropical gallery woods. Although it prefers the neighborhood of small streams, it sometimes occurs also far away from water.

The call of the male is a fairly low, slightly muffled, whistling note, repeated about 6-7 times in a moderately fast sequence, sounding like: "u.u.u.u.u.u." Another, rarely heard call, probably the warning, sounds like: "tickticktickticktick," uttered in rapid sequence. The voice of the female is very different. Heinrich has heard it only once but failed to make notes.

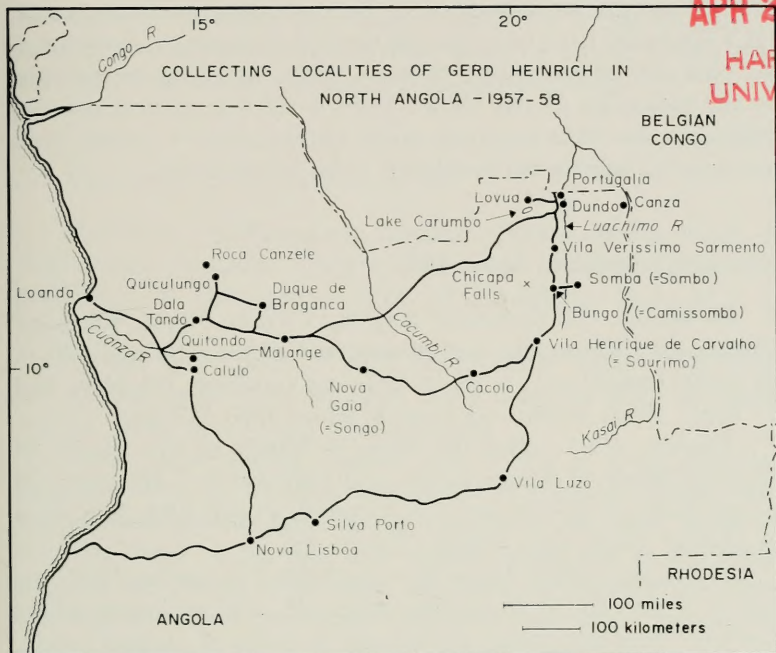
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The display call of the male described above is very similar to the call of a muscicapid, *Trochocerus nitens*, which often shares the biotope of *Sarothrura pulchra*. The two calls can be mistaken for each other, as their timbre and sound is almost identical. The main difference is that the sequence of notes is more rapid in the call of the flycatcher.

Under the continuous cover of ground vegetation and between dead branches and broken stalks hung with layers of dead leaves, the white-spotted pigmy rail moves with the adroitness of a mouse, not even a single stem trembling. Without the call of the male it would stay invisible to human eyes. However, the male can be easily lured by imitating its breeding call.

The breeding season coincides with the rainy season. Between November and April the call of the rail can be heard continuously in all dense tropical jungles. Calls and imitated answers may be repeated countless times, while in the meantime the bird will slowly and cautiously approach the supposed rival. Often enough a rail may call from a few yards distance from the hunter's feet

and still remain invisible. Most of the specimens which one of us (H.) has lured have been seen at the end, but not all. Sometimes the bird can be recognized between stalks and dead leaves only by the pulsations of the throat. Once a rail has approached the challenger and feels uncertain about the situation, it usually does not cease to answer but muffles its voice considerably.

Cercococcyx olivinus Sassi, 1912.

MATERIAL. Northwestern Angola, Cuanza Norte, north of Quiculungo, Bolongongo and plantation Canzele, 700 and 600 m alt (new record)—2 ♂ ad in breeding condition, 15 Nov. and 27 Sept., 1957; weight: 68.5, 65 g; wing: 146, 147 mm.

Traylor (1963) gives the range in Angola of this species as "Cuanza Norte at Ndala Tando and Camabetela." However, its unmistakable voice was heard by Heinrich several times in a relict of tropical jungle near Gabela, Cuanza Sul.

In Angola it often shares the same habitat as *mechowi* Cabanis but it is also found in smaller relicts of tropical forests where *mechowi* does not occur, particularly in strips of tangled jungle, interdigitating with open areas. In contrast to *mechowi*, this species keeps more to the mid- and higher levels, found usually in the dense foliage of the crowns of medium sized trees.

The normal call of the male is a two-syllabic "whistling cry" which glides from the strongly accentuated first syllable, down to the short second, a half note deeper and cut off: "húo." This call is doubled in immediate succession: "húo húo," and this four-syllabic tune is repeated at short intervals many times. The call can be easily imitated by whistling. If this is done, the cuckoo will answer eagerly, alternating with the calls of the observer. The voice of *C. olivinus* is usually heard during the early hours of the morning and in the evenings, rarely in the dry season, but with increasing frequency at the beginning of the rainy season. The caller is especially active during sultry weather and shortly before a thunder shower. A somewhat different "song" seems to indicate the highest degree of excitement. In this version the basic two-syllabic cry is not doubled, but repeated many times in short, gradually more and more abbreviated intervals, simultaneously becoming louder, higher pitched and more and more eagerly

accentuated. This type of calling is audible for a long distance. It cannot be compared with any other voice of a bird, except with the call of the Koel *Eudynamis scolopacea* in Asia.

Cercococcyx mechowii Cabanis, 1882.

MATERIAL. Northwestern Angola, Cuanza Norte, north of Quiculungo, plantation Canzele, 600 m alt—2 ♂ ad in breeding condition, 29 Oct. and 2 Nov. 1957; weight: 52.5, 57.5 g; wing: 137 mm.

According to Traylor (1963) this species is "Known only from the type, probably from Malange, and a specimen from the dense tropical forest at Canzele, Cuanza Norte."

Dense, liana-tangled, tropical rain forests at lower altitudes form the home of this species. It shares this general habitat with *Cercococcyx olivinus* Sassi but, in contrast to the latter, keeps to the very depth of the dim and densest tangle and to the lower floor of the jungle. The avian associates of *olivinus* are characterized by *Bleda syndactyla*, *Illadopsis* and some Pycnonotids among which may be the suspected nesting hosts.

The usual call of this species is strangely different from all other cuckoos and sounds rather like the voice of a passerine bird. It is very sharp, a whistling note, always repeated three times without interval in fast sequence, each one of these three notes being very strongly accentuated, the last still stronger than the two preceding: "hit - hit - hit." This three-syllabic whistle is often, sometimes countless times, repeated, always with the same interval of about one second. The call can be easily imitated by whistling, but each whistled tone has to be terminated by a strongly pronounced "t." If the calling bird is challenged by a good imitation of its voice, it will answer as long as the imitator continues to call. With increasing excitement the bird will often change its place and sometimes approach the challenger, nevertheless keeping so perfectly hidden in the low tangle of lianas that the observer will rarely succeed in seeing it for an instant. At the climax of agitation the bird sometimes abruptly breaks out into an angry clamour of amazing sounds. This clamour is usually introduced by a three-syllabic call, "tututo," with the accent on the median syllable, followed by a series of 15-20 two-syllabic sounds in very rapid

succession and of angry timbre, somewhat "*ritardando*" toward the end of the series: "tutúo - tjúotjúotjúotjúotjúotjúo. tjúo. . . tjúo . . . tjúo . . . tjúo."

Centropus monachus occidentalis Neumann, 1908.

MATERIAL. Northern Angola, northern Malange, 42 km north of Duque de Braganca, 1250 m alt (new record)—1 ♂ ad in breeding condition, 5 Dec. 1957; *weight*: 210 g; *wing*: 176 mm.

According to Traylor (1963) this species is "Known only from southern Cuanza Norte where it is found in savannahs and clearings near forest."

Campethera cailliautii permista (Reichenow)

MATERIAL. Angola, Cuanza Sul, district Calulo, Quitondo (new record)—3 ♂ ad with gonads of one specimen moderately enlarged; *weight*: 48-55 (52.7) g; *wing*: 97 mm.

Traylor (1963) gives the range in Angola as "Cabinda, Malange and Cuanza Norte, south to the Cuanza River; . . ."

Campethera cailliautii fulleborni (Neumann)

MATERIAL. Northeastern Angola, southern Lunda, near Calcolo, 1400 m alt—1 ♂ ad, 10 January 1958; *weight*: 51 g; *wing*: 108 mm.

Traylor (1963) gives the range in Angola of this subspecies as "Northeastern Moxico, intergrading with *permista* in Lunda."

The specimen recorded differs from a series of 13 specimens from Cuanza Sul and northern Malange by slightly larger black marks on the ventral side and by the distinctly white dotted mantle.

Campethera nivosa herberti (Alexander)

MATERIAL. Northeastern Angola, province of Lunda, Luachimo River, 800 m alt (new record)—2 ♂ ad, 4 ♀ ad, gonads of most specimens slightly enlarged, 1 ♀ ad (24 Feb.) nearly in breeding condition, 23-25 Feb. and 7-12 May 1958; *weight*: 2 ♂ 37, 38 g, 4 ♀ 36-39 (37.5) g; *wing*: 2 ♂ 84, 88 mm, 4 ♀ 87-89 (88) mm. Northwestern Angola, Cuanza Norte, near

Quiculungo, 600-700 m alt (new record)—2 ♂ ad (one in breeding condition 7 Oct.), 1 ♀ ad with almost ready egg 7 Oct., Sept.-Oct. 1957; weight: 2 ♂ 36.5, 41 g, ♀ 40 g; wing: 2 ♂ 81, 82 mm, ♀ 87 mm.

Traylor (1963) gives the range in Angola of this subspecies as Malange and northern Cuanza Norte, Cuanza Sul at Gabela.

Secondary tropical jungle with abundant and dense undergrowth forms the habitat of this small species. It is seldom seen higher than one to two meters above the ground.

Mesopicos goertae ? agmen Bates, 1932.

MATERIAL. Angola, Cuanza Sul, district Calulo, Quitondo, 800 m alt (new record)—1 ♀ juv, 23 Aug. 1957.

According to Traylor (1963), "Although Sclater, Chapin, and Peters all include northern Angola in the range of this species, there is no record that it has ever been taken there."

The forehead of this specimen is narrowly light gray as are the lores and throat. The cap and tail coverts are red, but there is no red on the belly except for a few indistinctly reddish tinted feathers in its center. The mantle is olive-green, the chest and breast, olive-green tinged, the abdomen, light gray with slight greenish tinge, rather distinctly barred with white. A whitish moustachial stripe runs to below the lores; the outer three pairs of rectrices are very distinctly barred with white; the outer webs of flight feathers are olive with whitish marks, and the inner webs are conspicuously white-marked.

Lybius minor (Cuvier).

MATERIAL. Northwestern Angola, northern Malange, near Duque de Braganca—1 ♂ ad, 1 ♀ ad, both with gonads somewhat enlarged, 1 specimen, sex undetermined, 1 Sept.-28 Nov. 1957; weight: ♂ 54 g, ♀ 44 g, specimen unsexed 51 g; wing: ♂ 92 mm, ♀ 89 mm, specimen unsexed 92 mm.

Traylor (1963) gives the range as from "...Cabinda and Noqui on the Lower Congo south through Cuanza Norte to Huambo and northern Bihe," and Neumann's record (1908) gives from Manyanga, considerably farther up the Congo from Noqui.

In the male the cap is cerise-red, in the female, orange; the eyes are yellowish-red in both specimens and the feet lilac. The third, unsexed specimen, is in all probability a young male. It has a cerise cap as has the old male, but the sides of the head and the nape are a lighter gray and the eyes are yellowish-brown.

Lybius macclounii intercedens Neumann

MATERIAL. Northeastern Angola, northern Malange, near Duque de Braganca, 1250 m alt—1 ♂ ad, 1 ♀ ad, 7 November 1957; weight: ♂ 48 g, ♀ 43.5 g; wing: ♂ 86 mm, ♀ 87 mm. These specimens were collected from a sparse gallery wood along a small brook.

Peters (1948, p. 59) gives as the range "Belgian Congo between the Congo and lower Kasai rivers, east to Kwamouth and south to the interior of northern Angola."

The iris is "reddish brown" in contrast to "yellowish red" in *minor* Cuvier from the same locality; the feet are "pink" in contrast to "lilac" or "purplish-brown" in *minor*. In accordance with the original description of this subspecies, the head behind the red cap, the nape and mantle are gray (rather light), in contrast to black in *macclounii macclounii* Shelley, otherwise agreeing with the latter subspecies. Feathers of throat, neck, breast, chest, shoulder stripes and lores are entirely pure white. In the original description of this form Neumann has mentioned that he had two typical specimens of (*levaillanti levaillanti* =) *minor* Cuvier at hand which the collector insisted had been taken at the same locality with the type specimen of the new subspecies *intercedens*. The wording of this remark implies that the author did not quite believe the correctness of the collector's report. The latter is however now verified by a series of specimens collected by Heinrich in 1957 near Duque de Braganca in northern Angola, about 400 km south and 200 km east of Manyanga, the type locality of *intercedens*. This series contains 2 specimens of *intercedens* and 3 specimens of *minor*. Traylor (1963) has referred to this population with a remark under *minor macclounii*: "...birds from Duque de Braganca show intergradation with *minor*." The word intergradation" is a mistake. In both cases the *macclounii* and *minor* specimens are quite clearly distinct and separate, not only differing

in plumage but also in color of eyes and legs and in size. The two specimens of *macclounii intercedens* and *macclounii macclounii* Shelley were found to be sympatric in the belt where they meet each other and this fact suggests that these "forms" should be considered as distinct species.

Lybius macclounii macclounii (Shelley)

MATERIAL. Northeastern Angola, 15 km SW of Cacolo, 1400 m alt—2 ♂ ad with slightly enlarged gonads, 4 ♂ young, 1 ♀ ad, 31 Dec. 1957-10 Jan. 1958; *weight*: 2 ♂ ad 54, 56 g, 4 ♂ young 45-49 (45.5) g, ♀ 50.5 g; *wing*: 2 ♂ ad 86, 89 mm, 4 ♂ young 84-91 (88) mm, ♀ 91 mm.

Peters (1948, p. 59) gives the range of this subspecies as "Cuango River across the central Belgian Congo, the Katanga district and Northern Rhodesia to the region north of Lake Nyasa."

In our specimens, in contrast to the ones of *macclounii intercedens* Neumann from northwestern Angola, the dorsal side of the head (behind the red cap) and the mantle are black; an additional difference exists in an infuscation of the feathers from throat to breast, which are clear-white only apically, thus creating a grayish appearance of the ventral side of throat and neck and of the middle of the chest. In two specimens (the female and one young male) the infuscation is so distinct that it almost forms a gorget.

Lybius diadematus frontatus (Cabanis)

MATERIAL. Northeastern Angola, Lunda, 60 km north of Sombo, 1100 m alt and Lake Carumbo 900 m alt (new record)—2 ♂ ad in breeding condition, 12 March 1958 and 25 March 1958; *weight*: 24.5 g; *wing*: 71-75 mm.

Traylor (1963) gives the range in Angola as "The central plateau from northern Huila to southern Cuanza Sul, Malanje and northern Bihe." Peters' (1948, p. 53) includes Northern Rhodesia in the range of this form. The only specimen from Northern Rhodesia at hand, which is a male, is considerably larger (wing 83 mm) than the two specimens from Lunda and, in contrast to them, has the upper tail coverts extensively yellow.

In the province of Lunda, the specimens were only found in "savannah-park wood," a landscape where small groups of low trees and patches of bushes alternate with open, grassy areas. The call is a soft, low "h ú p," repeated each time about six to ten times in fairly slow sequence. It was heard only during the morning hours.

Indicator conirostris (Cassin).

MATERIAL. Northwestern Angola, Luachimo River, near Dundo, 800 m alt (new record)—1 ♂ ad, gonads moderately enlarged, 23 Feb. 1958; *weight*: 33.5 g; *wing*: 91 mm.

Praed and Grant (1952, p. 744) give the range of this species as "Southern Nigeria, Cameroons and Gabon to Kenya." Our record agrees with them in that the habitat is "forest edge or gallery woods along streams." Our specimen was collected in the damp, tropical gallery wood of the Rio Luachimo.

Ten specimens of *minor* Stephens collected by Heinrich in various localities of northwestern Angola and of Tanzania were all found in comparatively dry types of woodland, particularly in savannah woods on the highlands and up to the border of the high mountain forests in Tanzania. This indicates that *conirostris* is probably ecologically well differentiated from *minor* and a distinct species rather than a mere subspecies as Friedmann (1954) has proposed. It is evidently a member of the fauna of the Congo Basin which, as in so many other species, has followed up the strips of moist and dense lowland jungles along the tributaries of the Congo River into the province of Lunda in north-eastern Angola. There the two different worlds, the one of the dry brachystegia woods on the Angolan high plateau and the one of the central African lowland jungles in the river beds, meet and interdigitate—but never mix.

Indicator variegatus variegatus Lesson.

MATERIAL. Northwestern Angola, Cacolo, 1400 m alt (new record)—1 ♀ ad, 1 ♀ ? ad, 5 and 8 Jan. 1958; *weight*: ♀ ad 49.5 g, ♀ ? ad 55 g; *wing*: ♀ ad 104 mm, ♀ ? ad 106 mm.

Traylor (1963) gives the range in Angola as locally in the

escarpment zone of southern Benguela, at Ndala Tando (Cuanza Norte) and Duque de Braganca (Malanje).

The measurements of the two specimens are on the borderline between subspecies *variegatus* Lesson and the West African *jubaensis* Neumann, as published in the original description of the latter. But in color the Cacolo birds are more distinct from specimens from eastern Tanzania, the white on the abdomen being considerably more extended toward the breast and flanks.

Prodotiscus regulus Sundevall, 1850.

MATERIAL. Northeastern Angola, central Lunda, upper Chicapa River, near Xa-Cassau, 1100 m alt (new record)—1 ♀ in breeding condition, 5 Feb. 1958; *weight*: 15.5 g; *wing*: 78 mm. Northeastern Angola, southern Lunda, upper Luachimo River, 50 km north of Dala, 1300 m alt (new record)—1 ♂ ad, 19 May 1958; *weight*: 13 g; *wing*: 76 mm. Northern central Angola, 25 km NW of Nova Gaia, 1250 m alt (new record)—1 ♂ ad, 17 Dec. 1957; *weight*: 13.5 g; *wing*: 78 mm. .

Taylor (1963) gives the range in Angola as "...central Huila to northern Bihe and the Luau River."

Although this species prefers dry areas with scattered trees, one specimen was collected in the midst of a swampy meadow in tall grass.

Prodotiscus zambesiae zambesiae Shelley, 1894.

MATERIAL. Northeastern Angola, southern Lunda, Cacola, 1400 m alt (new record)—4 ♂ ad, 2 ♀ ad, Dec. 1957-Jan. 1958; *weight*: 4 ♂ 9.5-10 (9.7) g, 2 ♀ 10.5, 11 g; *wing*: 4 ♂ 72-76 (74) mm, 2 ♀ 71, 72 mm.

Taylor (1963) gives the range in Angola of this species "...from northern Huila to Chitau, northern Bihe."

This form differs not only significantly in the color of the ventral side from *insignis* Cassin, lacking any trace of a green or olive tinge, but also in a longer tail and in a considerably longer wing. As the above record indicates, it is practically sympatric in the province of Lunda with *insignis*. However, the species is restricted to the dry brachystegia-type of woodland, a habitat very

strongly different from the moist tropical lowland jungle where *insignis* lives.

In the two forms, the light gray to apically whitish ventral side combined with longer wings and tail and the dark, olive-tinged underparts combined with shorter wings and tail, are evidently well-developed adaptations to the light, open and dry savannah woods and to the dim, dense and humid tropical jungle respectively. Forms thus adapted to the life in one or the other of these two biotopes and, in addition, as honey-guides associated with particular bird hosts, will presumably be unlikely to hybridize even where the two habitats interdigitate as in northern Lunda. Morphologically as well as ecologically they suggest that they represent two distinct species. Their external similarity of appearance alone seems insufficient to support the hypothesis of their being subspecies. Honey-guides are known to be especially difficult taxonomically. There are two parallel cases in the *Indicatoridae*: *minor* Stephens/*conirostris* Cassin and *variegatus* Lesson /*maculatus* Gray.

Prodotiscus insignis (Cassin).

MATERIAL. Northeastern Angola, upper Luachimo River, north of Sombo, 1100 m alt (new record)—1 ♀ ad, 9 March 1958; weight: 10.5 g; wing: 66 mm.

This species is found in tropical gallery-wood, and Traylor (1963) gives the range as "...Cuanza Norte at Canzele and Quiculungo; probably will be found in Cabinda."

Smithornis capensis albigularis Hartert, 1904.

MATERIAL. Northeastern Angola, Lunda, Saurimo, 1100 m alt and 38 km north of Camissombo, 1000 m alt (new record)—2 ♂ ad, 1 ♀ ad, all in breeding condition, 1 ♀ juv, 31 Dec. 1957 and 1 Feb. 1958; weight: 2 ♂ 29, 30 g, ♀ ad 23 g, ♀ juv 22 g; wing: 2 ♂ 72, 74 mm, ♀ ad 70 mm, ♀ juv 70 mm.

Traylor (1963) gives the range in Angola as "...southern Cuanza Norte and adjacent Malanje, extending south along the escarpment to Gabela and Chingoroi and reaching southwest Malanje in the Luce River ... extreme northeast Moxico."

Hirundo nigrita Gray, 1845.

MATERIAL. Northeastern Angola, Lunda, Rio Luachimo, Rio Kasai and Lake Carumbo, all altitudes about 900 m (new record)—3 ♂ ad, 3 ♀ ad (1 ♂ and 1 ♀ in breeding condition), 24 Feb.-5 April 1958; *weight*: 3 ♂ 17-22 (18.9) g, 3 ♀ 15.5-22 (18.9) g; *wing*: 3 ♂ 106-110 (108) mm, 3 ♀ 104-110 (107) mm.

These specimens extend the known Angolan range of the species, which Traylor (1963) gives as "... along forested rivers in Cabinda." The species is confined to larger rivers with gallery wooded shores. Hunts always above the water and seems rarely to leave the river bed.

On 4 April 1958 two nests with nearly grown young were found underneath a small fisherman's hut on stilts above the water of the Kasai River.

Hirundo albigularis ambigua Bocage.

MATERIAL. Northeastern Angola, Lunda, Upper Rio Luachimo (50 km north of Dala), 1300 m alt (new record)—1 ♂ ad, 1 ♀ ad, both with gonads slightly enlarged, 19 March 1958; *weight*: ♂ 20 g, ♀ 19 g; *wing*: ♂ 117 mm, ♀ 118 mm.

Traylor (1963) gives the range as "Locally from Bailundu on the central plateau to southern Cuanza Norte, western Malange and northern Moxico."

Pycnonotus latirostris latirostris (Strickland).

MATERIAL. Northwestern Angola, Cuanza Norte, Canzele, 600 m alt—5 ♂ ad, 4 ♀ ad (gonads moderately enlarged in majority of specimens), Oct. 1957; *weight*: 5 ♂ 27-32 (31.3) g, 4 ♀ 23.5-28 (25.4) g; *wing*: 5 ♂ 86-92 (89.6) mm, 4 ♀ 80-82 (81) mm. Northeastern Angola, Lunda, Rio Luachimo, 800 m alt—1 ♂ ad; *weight*: 32.5 g.

Traylor (1963) gives the range in Angola of this subspecies as "... Cabinda, Canzele in northern Cuanza Norte, Gabela on the escarpment of Cuanza Sul and Dundo, northern Lunda."

At first glance this West African form of the lowland jungles appears to be rather similar to the East African *australis* Moreau

of the mountain evergreen forests of western Tanzania. A closer examination reveals however that the two forms have little in common except the color of chest and belly; *latirostris latirostris* differs from *australis* as follows: upper parts rather dark olive-brown (instead of pale, almost grayish, olive-green); chin between yellow moustachial stripes, pale grayish (instead of yellow); legs light yellow (instead of olive-brown); bill longer; primaries shorter in comparison with the longest secondaries, the wing thus more rounded.

Nicator chloris (Valenciennes).

MATERIAL. Northeastern Angola, Lunda, Luachimo River, 800 m alt (new record)—5 ♂ ad, all in full breeding condition. 17 Feb.-25 March 1958; weight: 52-61 (57.3) g; wing: 99-111 (107.6) mm.

Traylor (1963) gives the range in Angola as "known from Cabinda and from specimens taken by Schütt on the Cuango River."

Rank, dense and tangled bushes on the exterior, ascending slopes of tropical gallery woods mixed with single tall trees form the usual habitat of this species. The singing male is usually perched in the crown of an old, tall tree towering high over the dense low tangle. The singer is always extremely well hidden in the foliage and hard to discover. The song of this species was heard in the rainy season during February, March and April. It is the most beautiful bird song heard in the African jungle. It is rich in modulation and sound, amazingly versatile and in some passages comparable to the song of the European, eastern Nightingale (= Sprosser), *Erithacus luscini*a, although not quite as fluent and passionate as the latter. Heinrich noted the following transcription of a continuous song: "tjúp - tjúp - tjúp (rich, flute-like, hesitating, with small intermissions between the syllables) tjúp - huk huk huk huk huk (deep, rich, very fast in succession), terr-tetete (harsh and jarring), dí - di di di di di di do (first syllable sustained, the others short, following each other rapidly and falling simultaneously in pitch). The warning call is loud, a very sharp, almost smacking monosyllabic sound, uttered only once or a few times in sequence.

Nicator vireo Cabanis, 1876.

MATERIAL. Northeastern Angola, Kasai River, 900 m alt (new record)—1 ♂ ad, 10 April 1958; *weight*: 21 g; *wing*: 73 mm. Northwestern Angola, Cuanza Sul, district Calulo, Quitondo, 800 m alt (new record)—1 ♀ ad, 20 Aug. 1958; *weight*: 23.5 g; *wing*: 71 mm.

Traylor (1963) gives the range in Angola as "Cabinda, the Cuango River, Cuanza Norte and the escarpment at Gabela, Cuanza Sul."

Bleda syndactyla multicolor (Bocage).

MATERIAL. Northwestern Angola, Cuanza Sul, Calulo district, Quitondo, 800 m alt (new record)—1 ♀ ad, 21 Aug. 1957; *weight*: 40 g; *wing*: 105 mm. Northwestern Angola, Cuanza Norte, Canzele, 600 m alt (new record)—3 ♂ ad, 5 ♀ ad (2 ♂ and 3 ♀ in breeding condition), 13 Sept.-8 Oct. 1957; *weight*: 3 ♂ 49-51 (50) g, 5 ♀ 43-47 (46) g; *wing*: 3 ♂ 111-112 (111.7) mm, 5 ♀ 103-109 (106.2) mm. Northeastern Angola, Lunda, Camissombo, 1000 m alt (new record)—1 ♂ ad (this specimen from Camissombo), 2 ♀ ad, 1 ♀ juv (adults in breeding condition), 10 Feb. 1958; *weight*: ♂ 52 g, 2 ♀ ad 45.5, 50 g, ♀ juv 40 g; *wing*: ♂ 115 mm, 2 ♀ ad 101, 102 mm, ♀ juv 98 mm. Luachimo River near Dundo, 800 m alt (new record)—3 ♀, 19-26 Feb. 1958.

Traylor (1963) gives the range in Angola as "... locally ... from Cabinda and Cuanza Norte to northern Lunda. A juvenal was taken at Dondo on the Cuanza River. ..."

Ptyrticus turdinus upembae Verheyen, 1951.

MATERIAL. Northeastern Angola, Luachimo River, near Dundo, 800 m alt (new record)—2 ♂ ad, 1 ♀ ad, all in breeding condition, 24 Feb.-1 March 1958; *weight*: 2 ♂ 56, 58 g, ♀ 45 g; *wing*: 2 ♂ 93, 94 mm, ♀ 85 mm.

The range is recorded from type locality only: (lat. 8°48'S, long. 26°50'E), Belgian Congo.

These are very elusive ground birds, found in the densest liana-tangled tropical brushwood forming the outer fringes of gallery

wood. A singing male was observed in the early morning of 25 Feb. It kept always to the densest thicket and close to the ground, often shifting its perch but never ascending above a yard from the ground. The song is short, of striking volume and of pleasant sound. It can fairly exactly be circumscribed as follows: "tjúlo-tjúlítjúlo...tjúlo-tjúlítjúlo." The accentuated "i" of the fourth syllable is extended and about five or six notes higher, the ending "o" of the second stanza about one tone deeper than the rest.

The iris is brown in males, light brown in females; the feet are ivory with pink tinge; the bill's upper mandible is blackish with blades narrowly whitish as is the tip; and the lower mandible is pale gray with bluish tinge.

Eythropygia hartlaubi Reichenow, 1891.

MATERIAL. Northwestern Angola, Cuanza Norte, Bolongongo (north of Quiculungo), 600-700 m alt—2 ♂ ad in breeding condition, 1 ♀ ad, Nov. 1957; *weight*: 2 ♂ 20, 21 g, ♀ 17 g; *wing*: 2 ♂ 63, 66 mm, ♀ 60 mm.

According to Traylor (1963) the range in Angola is "... only known from a single specimen from Ndala Tando, Cuanza Norte."

This bird inhabits larger patches of dense, low bushes in undulating country close or contiguous to tropical woods. The pleasant song is at once distinguishable from *E. leucophrys zambesiana* but impossible to circumscribe.

Cossypha heinrichi Rand, 1955.

MATERIAL. Northern Angola, about 30 km northeast of Duque de Braganza—2 ♂ ad, 2 ♀ ad, 1 ♀ and 1 ♀?, both molting into first year plumage, 1 ♀ and 1 (sex?), both in juvenal plumage (also skeleton, ♀? ad), Nov. 1957; *weight*: 2 ♀ ad 61, 69 g, 2 ♀ ad 56 g, 2 ♀ subad 45, 53 g; *wing*: 2 ♂ ad 120 mm, 2 ♀ ad 110, 117 mm, 2 ♀ subad 109, 117 mm. (Holotype: ad [sex?], Chicago Natural History Museum no. 221.000.)

The color of eyes in juvenile and subadult specimens is blackish-brown, in adults purplish-red. The legs are brownish-gray in juvenile specimen, slate-gray in adults. The bill in adults is black.

The juvenal plumage agrees with the description given by Rand

(1955) in reconstruction from a bird molting into first year plumage. As in adults, the next to central pair of rectrices has extensively black inner webs except apically, and the outer pair of rectrices has black outer webs (except basally).

One of the three birds on which the original description is based was shot in savannah with scattered bushes and small trees. More comprehensive observations of this species during the second expedition to Angola have revealed that the appearance of *Cossypha heinrichi* in the savannah wood is a great exception and occurs only in pursuit of driver ants. The real habitat of this bird is the dense underbrush of shady tropical gallery woods along rivers and brooks. Here it lives an extremely hidden and elusive life, always moving on the ground or close to it in dense thickets. As with all African ground-thrushes it is very fond of driver ants and seemingly irresistibly attracted by their marching columns, which it follows, occasionally even into savannah woods, adjacent to the riverside jungle.

The first specimens of *Cossypha heinrichi* were taken during April, the second series during November. In both months specimens molting into first year plumage were taken in November simultaneously with short-tailed nestlings. This seems to indicate that two broods occur, one approximately during February, the other during October.

The stomach of a young female was tightly stuffed with driver ants, among them a great number of the big-headed soldiers. The stomach of other specimens contained parts of different insects, usually some ants.

Alethe castanea castanea (Cassin).

MATERIAL. Northeastern Angola, Lunda, Luachimo River, 800 m alt (new record)—3 ♂ ad, 3 ♀ ad, all except 1 ♂ and 1 ♀ in full breeding condition (1 ♀ with ready egg), 19-23 Feb. 1958; weight: 3 ♂ 31-36.5 (34.2) g, 3 ♀ 31-34.5 (33) g; wing: 3 ♂ 92-98 (95) mm, 3 ♀ 89-92 (90.3) mm.

Traylor (1963) gives the range in Angola as "Cabinda; south of the Congo included on the authority of Reichenow . . ."

These extremely secretive and elusive ground-birds live in the dim, liana-interwoven tangle in the exterior parts of tropical gallery wood.

Eremomela atricollis Bocage, 1894.

MATERIAL. Northeastern Angola, southern Lunda, Cacolo, 1400 m alt (new record)—2 ♂ ad, 2 ♀ ad, 1 ♀ juv, 23 Dec. 1957-4 Jan. 1958; *weight*: 2 ♂ 10 g, 2 ♀, 1 ♀ juv 9.5-10 (9.7) g; *wing*: 2 ♂ 57, 58 mm, 2 ♀ ad, 1 ♀ juv 56-58 (56.6) mm. Northeastern Angola, northern Lunda, 60 km north of Sombo, 1100 m alt (new record)—2 ♂ ad, one with moderately enlarged gonads, March 1958; *weight*: 9.5, 10 g; *wing*: 57 mm. Northeastern Angola, northern Lunda, 35 km west of Camissombo, 1100 m alt (new record)—1 juv unsexed specimen, Feb. 1958; *weight*: 9.5 g; *wing*: 54 mm.

Traylor (1963) gives the range in Angola as "Central plateau region in northern Huila, Huambo and northern Bie and probably Lunda."

Apalis jacksoni jacksoni Sharpe.

MATERIAL. Northwestern Angola, Cuanza Sul, district Calulo, Quitondo, 800 m alt (new record)—2 ♂ ad, 1 ♀ ad, Aug. 1957; *weight*: 2 ♂ 8.5, 8 g, ♀ 9.5 g; *wing*: 2 ♂ 52 mm, ♀ 47 mm. Northwestern Angola, Cuanza Norte, Canzele, 600 m alt (new record)—1 ♂ ad, 1 ♀ ad, both nearly in breeding condition, Oct. 1957; *weight*: ♂ 10 g, ♀ 8 g; *wing*: ♂ 52 mm, ♀ 49 mm. Northeastern Angola, southern Lunda, 15 km SW of Cacolo, 1400 m alt (new record)—1 ♀, Jan. 1958; *weight*: 8 g; *wing*: 50 mm.

Traylor (1963) gives the range in Angola as "...Cuanza Norte and adjoining Malange."

Although the locality in southern Lunda (Cacolo) lies in the midst of extended wood of the brachystegia type, these birds were not found in the latter habitat but only in narrow strip of tropical gallery wood along a mountain stream, where they kept to the crowns of tall trees.

Apalis rufogularis angolensis (Bannermann)

MATERIAL. Northwestern Angola, Cuanza Sul, district Calulo, Quitondo, 800 m alt (new record)—8 ♂ ad (one only with moderately enlarged gonads), 2 ♀ ad, 2 ♂ juv, 13-28 Aug. 1957;

weight: 8 ♂ ad 7-9 (8.4) g, 2 ♀ 8, 8.5 g, 2 ♂ juv 8.5 g; *wing*: 8 ♂ ad 46-49 (47.6) mm, 2 ♀ 45 mm, 2 ♂ juv 46, 49 mm. Northeastern Angola, Cuanza Norte, Canzele and Bolongongo, 600 m alt (new record)—5 ♂ ad, 1 ♀ ad, 2 ♂ juv (adults in breeding condition), 14 Sept.-6 Nov. 1957; *weight*: 5 ♂ ad 9.5 g, ♀ 9 g; *wing*: 5 ♂ ad 48-50 (48.8) mm, ♀ 45 mm.

Traylor (1963) gives the range of these specimens as Cuanza Norte and Malange.

The comparison of the two series of males from Cuanza Norte and Cuanza Sul shows no difference in the shade of gray on the upper parts or in the contrast of color of head and mantle, except in a single specimen which is lighter gray than the others and evenly colored on head and mantle; this specimen comes from Cuanza Norte, instead of Cuanza Sul, where the lighter colored subspecies *brauni* Stresemann should be expected. The original description of the latter mentions neither the peculiar sexual dimorphism of this species nor the sex of the specimen described. As only two specimens are recorded, and the description of the juvenile is included, it appears that the subspecies was based on a single adult male, an exceptionally light-colored mutant as also recorded above from Cuanza Norte. For the present *brauni* should be considered a synonym of *angolensis*.

Apalis rufogularis nigrescens (Jackson)

MATERIAL. Northeastern Angola, northern Lunda, Luachimo River, 800-900 m alt (new record)—4 ♂ ad, all in breeding condition, 1 ♀ (juv?), 20 Feb.-4 May 1958; *weight*: 4 ♂ 9.5-9 (9.2) g, ♀ 8 g; *wing*: 4 ♂ 49 mm, ♀ 45 mm.

Chapin (1953) gives the range as "While it is well known from the forests of Uganda, the western limit of *nigrescens* has yet to be fixed."

The above specimens have been compared with specimens from Uganda (Mabira) and were found to match them exactly. The dorsal side of males is blackish-brown; on the middle of the chest and lower throat the black bases of feathers are distinctly visible, covered only imperfectly by the veil of the white feather fringes. In the female the head is gray, including the nape, except the light rufous chin and throat; the mantle has an olive-greenish tinge. The female is scarcely distinguishable from *angolensis* Banner-

mann, except that in our specimen the light rufous color on throat and chest is paler. The iris is reddish-brown, the toes brownish-pink to brownish, and tarsus always darker than toes. These specimens live in the tree crowns of the median and upper floor of tropical gallery wood.

Apalis alticola (Shelley)

MATERIAL. Northeastern Angola, southern Lunda, Cacolo, 1400 m alt (new record)—1 ♂ ad, 9 Jan. 1958; *weight*: 11.5 g; *wing*: 54 mm. Northwestern Angola, northern Malange, 42 km north of Duque de Braganza (new record)—1 ♂ ad, 2 ♀ ad (2 ad in breeding condition), 2 ♂ juv, 1 juv unsexed, 24-28 Nov. 1957; *weight*: ♂ ad 13 g, 2 ♀ 10, 11.5 g, 2 ♂ juv 11, 11.5 g; *wing*: ♂ ad 58 mm, 2 ♀ 49, 53 mm, 2 ♂ juv 54 mm.

Traylor (1963) gives the range in Angola as "Rare and local in western Malange and northern Bie."

This species is restricted by ecological preference to narrow strips of moist, tropical gallery wood along rivers.

Sylvietta virens baraka (Sharpe)

MATERIAL. Northeastern Angola, Lunda, Luachimo River, 800 m alt (new record)—1 ♂ ad, 2 ♀ ad, Feb. and May 1958; *weight*: ♂ 10 g, 2 ♀ 8.5, 9 g; *wing*: ♂ 49 mm, 2 ♀ 47 mm.

Chapin (1953) gives the range as "From the Upper Congo forest eastward to the Lotti Forest in the southeastern Sudan, the base of Elgon, Mabira Forest, the vicinity of Rutshuru, and Bukoba. Wanting in the Kivu highlands, it extends to the forested Manyema and the vicinity of Luluabourg in the Kasai."

These birds live in low bushes in tropical gallery wood. Mr. M. A. Traylor was kind enough to examine the specimens and confirmed that they agree with this subspecies.

Sylvietta virens meridionalis new subspecies.

TYPE: ♂ ad (YPM no. 84283), Collector's no. 18928, northwestern Angola, Cuanza Sul, district Calulo, Quitondo, 800 m alt, 23 Aug. 1957, collected by Gerd Heinrich.

DESCRIPTION: Differs strikingly from *virens virens* Cassin by almost entirely white chest and belly and in addition by lighter ochreous color of throat, breast, sides of neck, cheeks, ear coverts and superciliary stripes; head dorsally also paler than in *virens* with a slight rufous tinge. Middle of belly and chest in majority of specimens with a longitudinal, yellow tinged area. Belly and chest white, flanks narrowly light gray tinted; sides of chest more extensively and more intensively grayish-brown than flanks. From the subspecies *tando* Sclater this form differs in the same characters as from *virens* but less strikingly so. Geographically *tando* is thus intermediate between *virens* in the north and *meridionalis* in the south of the range of the species in Angola. It would seem to be a mistake to confound either the northern or southern adjacent form with the name *tando*, although the naming of such an intermediate form could better have been avoided.

Range: Northeastern Angola, Cuanza Sul, district of Calulo and Gabela; also Cuanza Norte but only in dry coastal belt near Luanda.

Material: 5 ♂ ad, 2 ♀ ad, not in breeding condition: Northeastern Angola, Cuanza Sul, district Calulo, Quitondo, 800 m alt, 11-23 Aug. 1957.

1 ♂ ad, 1 ♀ ad, not in breeding condition: Northeastern Angola, Luanda, nearly sea level, 4 Aug.-8 July 1957.

Weight: Cuanza Sul: 5 ♂ ad 9-10 (9.4) g, 2 ♀ ad 8.5, 9.5 g. Luanda: 1 ♂ ad 10.5 g, 1 ♀ ad 9 g.

Wing: Cuanza Sul: 4 ♂ ad 49-52 (50.5) mm, 2 ♀ ad 46, 49 mm. Luanda: 1 ♂ ad 52 mm.

Ecological note: In contrast to *virens virens* this form inhabits the semiarid coastal lowland, in parts of its range (Luanda) where it keeps to pockets of dense shrubbery. South of the Cuanza it was found in relicts of second growth of tropical thicket.

Remark: Mr. M. A. Traylor was kind enough to compare specimens of the series listed above with three specimens from Golungo Alto, a place very close to the type locality of *tando*. He found our specimens differed by paler belly and more reddish throat and breast.

Dyaphorophyia concreta ansorgei Hartert.

MATERIAL. Angola, Cuanza Sul, district Calulo, 800 m alt (new record)—5 ♂ ad (gonads of 4 moderately enlarged), 2 ♀ ad, 1 ♂ juv, 1 ♂ ?, 3 ♂, 12-16 Aug. 1957; *weight*: 6 ♂ ad 9-12 (10.9) g, 2 ♀ 10.5 g, ♂ juv 12.5 g; *wing*: 6 ♂ ad 54-56 (55.3) mm, 2 ♀ 58 mm, ♂ juv 55 mm.

Traylor (1963) gives the range in Angola as "Locally from northern Cuanza Norte south along the escarpment to extreme northern Huila."

This species inhabits the median floor, that is, the higher bushes and low trees, of dense and liana-tangled, secondary tropical thickets of restricted extent in hilly situations.

The voice is a three-syllabic, very melodic whistle. The three syllables are identical and are uttered in fast sequence: "tututu." In a variant of this call the third syllable is strongly accentuated: "tututu."

Our series shows a considerable variability. In both sexes the color of the dorsal side of head and mantle varies from a distinctly olive-green tinge to almost plain gray. This makes the subspecies *canzelae* Meise untenable. In both females throat and chest are chestnut-red. All males are bright yellow below, with chest and belly in two specimens intensively golden-orange. In one adult specimen, in all probability a male, a broad, apically rounded, gorget of deep black color (with a slight bluish gloss) runs from the middle of throat to the termination of the chest.

Hyliota flavigaster barbozae Hartlaub.

MATERIAL. Northeastern Angola, Lunda (Cacolo, Saurimo, Camissombo, Lake Carumba), 900-1400 m alt (new record)—6 ♂ ad, 3 ♀ ad, 1 ♂ juv, 28 Dec. 1957-25 March 1958; *weight*: 6 ♂ ad 11.5-14 (12.6) g, 3 ♀ 11.5-13 (12.1) g, ♂ juv 12 g; *wing*: 6 ♂ ad 70-72 (71.5) mm, 3 ♀ 67-71 (68.6) mm. Northern Angola, Malange (Duque de Braganza and Nova Gaia), 1200 m alt (new record)—2 ♂ ad, one in breeding condition, 2 Dec., 18 Dec. 1957; *weight*: 2 ♂ 12.5, 13.5 g; *wing*: 2 ♂ 70, 72 mm.

Traylor (1963) gives the range in Angola as "The central plateau from northern Huila north to Huambo and Malange and east to the Congo-Rhodesian border."

This form inhabits the continuous dry brachystegia woodlands of the high plateau, where they search for food in the foliage of tree crowns in a warbler-like manner. During the dry season they are constant members of the flocks of different species of small birds migrating in loose association through the woods.

Hyliota australis australis Shelley.

MATERIAL. Northeastern Angola, Lunda, 15 km SW of Cacolo, 1400 m alt (new record)—3 ♂ ad, 4 ♀ ad, 1 ♂ juv, 3 specimens unsexed, 22 Dec. 1957-11 Jan. 1958; *weight*: 3 ♂ ad 9.5-10.5 (10) g, 4 ♀ 10-10.5 g, ♂ juv 9 g; *wing*: 3 ♂ ad 66-67 (66.6) mm, 4 ♀ 64 mm, ♂ juv 64 mm.

Traylor (1963) gives the range in Angola of this species as "Locally in northern Moxico, central Huila on the Cului River and at Gabela on the escarpment of Cuanza Sul."

There seems to be no ecological differentiation between this species and *flavigaster barbozae* Hartlaub; both share the same type of brachystegia woodland as their habitat and during the dry season both join the wandering flocks of small birds.

Terpsiphone viridis speciosa (Cassin).

MATERIAL. Northeastern Angola, Rio Kasai (new record)—1 ♂ ad, gonads slightly enlarged.

Chapin (1953) gives the range as "Most of the forested area of Lower Guinea, from near Mt. Cameroon, the French Congo, and perhaps the Mayombe Forest, eastward to the Semliki Valley, also in outlying wooded area . . . south to Luluabourg and the Manyema Forest."

This specimen was collected in a tropical gallery wood along a small tributary of the Kasai River.

The median rectrices exceed the others by 65 mm; they are white with outer and inner edges narrowly black. Wing coverts are predominantly white, as are exterior belts of secondaries. The mantle is chestnut-red mingled with a few white and some black feathers. Under tail coverts are slate-gray, as is the belly. The head, throat and chest are metallic blue.

Anthus brachyurus leggei Ogilvie-Grant.

MATERIAL. Northeastern Angola, southern Lunda, 40 km east of Cacolo, 1400 m alt (new record)—1 ♂ ad, 2 ♀ ad, 1 specimen unsexed, 16-20 Jan. 1958; *weight*: ♂ 14 g, 2 ♀ 14, 15.5 g, specimen unsexed 14.5 g; *wing*: ♂ 60 mm, 2 ♀ 60 mm, specimen unsexed 58 mm.

Traylor (1963) gives the range in Angola as "... only from Missão de Luz, Lunda, where it was twice taken by Lynes."

The habitat of this form is treeless meadows covered with short grass and surrounded by brachystegia woodland. They favor the drier, exterior belt of these meadows, sharing this habitat with *Mirafra rufocinnamomea*.

The black streaks on chest and breast are so wide and dense in both females that the black color is strongly predominant.

Laniarius leucorhynchus (Hartlaub).

MATERIAL. Northwestern Angola, province of Lunda, Luachimo River, gallery wood (new record)—1 ♀ ad; *weight*: 49 g; *wing*: 90 mm.

The distribution, according to Peters (1960, p. 333) is "Sierra Leone to Cameroon and the lower Congo and east to the Uele district, extreme southeastern Sudan, the forests of Uganda and western Kenya (north Kavirondo), and south to Kivu, Sankuru, upper Kasai and Kwango in the Belgian Congo."

Nectarinia bocagei Shelley, 1879.

MATERIAL. Northern Angola, Malange, 25 km NW of Nova Gaia (== Songo), Songo, 1250 m alt (new record)—2 ♂ ad, approximately in breeding condition, 18 Jan. 1958; *weight*: 14.5, 15 g; *wing*: 72, 73 mm.

Traylor (1963) gives the range as "Restricted to the western highlands in northern Huila, Huambo and northern Bie, recorded from brachystegia woodland."

The two birds were found in similar habitat characteristic of the wooded high plateau between Malange and Saurimo; namely wide strips of open, flat, marshy meadows along brooks, interrupting the extensive and continuous brachystegia forests. The birds were visiting swamp flowers.

Nectarinia reichenbachii Hartlaub, 1857.

MATERIAL. Northeastern Angola, Lake Carumbo, district of Lunda (new record)—1 ♂ ad, gonads moderately enlarged, 26 March 1958; *weight*: 13 g; *wing*: 60 mm.

Traylor (1963) gives the range as Ghana to the eastern and lower Congo; Cabinda.

Our specimen was found in a fairly rank and moist, but not liana-tangled, savannah wood close to a stream-valley.

Malimbus nitens (Gray).

MATERIAL. Northeastern Angola, Luachimo River, near Dundo (between lat 7° and 8°S), 800 m alt (new record)—1 ♂ ad, 2 ♀ ad, all in breeding condition; *weight*: ♂ 37.5 g, 2 ♀ 24.5, 36 g; *wing*: ♂ 91 mm, 2 ♀ 79, 82 mm.

Peters (1962, p. 58) gives the range as "Portuguese Guinea to Gabon and the Congo region, south to about lat. 4°S."

These birds inhabit the liana-tangled, dense lower floor of damp, tropical gallery wood. They seem to favor the vicinity of the riverbed. Their behavior is similar to *Ploceus* (*Symplectes*) *bicolor* Vieillot. They are skillful and lively climbers in the tangle of liana webs. Their calls are harsh and high-pitched, also similar to *Ploceus bicolor*.

Traylor (1963) lists the subspecies *moreaui* White for Cabinda. Moreau and Greenway (in Peters, *loc. cit.*) have synonymized that subspecies with *nitens* Gray. The only difference between "*moreaui*" and *nitens* given in the original description of the former is in the measurements of wing and bill; according to the measurements of wings, the Angola birds belong to *nitens* (83-91 mm) rather than to "*moreaui*" (91-97 mm). Based on the evident individual and sexual variability of wing measurements, we are inclined to agree that the subspecies "*moreaui*" is untenable.

Ploceus cucullatus frobenii Reichenow, 1923.

MATERIAL. Northeastern Angola, Lunda, Luachimo River, near Dundo, 900 m alt (new record)—5 ♂, in breeding condition, 30 April 1958 (one specimen, 16 Feb. 1958); *weight*: 40.5-45 (43) g; *wing*: 84-88 (85.4) mm.

Chapin (1954) gives the range as "The Kasai and Sankuru districts of the Congo, extending west to near the Lubue River, and eastward also to the Manyema."

As usual, the nesting colony of these specimens was in the midst of a small village at the edge of the gallery forest.

Ploceus bicolor amaurocephalus (Cabanis).

MATERIAL. Northeastern Angola, Lunda, Sombo, 1100 m alt—3 ♂ ad (one on 14 March and one on 5 May in breeding condition), 3 ♀ ad (one on 14 March in breeding condition), 1 ♂ ?, March-May 1958; weight: 4 ♂ 30.5-39.5 (35) g, 3 ♀ 29.5-33 (31.5) g; wing: 4 ♂ 85-88 (86.2) mm, 3 ♀ 82-84 (82.6) mm.

According to Traylor (1963), the range of this species is "From Central Malange to southern Cuanza Norte and the coast of Luanda, then south along the escarpment to Chingoroi, northern Huila; also reaches the coast at Benguela."

In this paper we separate the Lunda population from *kigomaensis* where it was included by Traylor. On the other hand we separate the population of Cuanza Sul from *amaurocephalus* as a new subspecies. Accordingly in Angola the range of *amaurocephalus* includes the entire northern part of the country, north of the Cuanza, but excludes southwestern Angola on the southern side of that river. To the north this subspecies presumably extends considerably beyond the borders of Angola.

Chin and throat of the males are black (as originally pictured *loc. cit.*); feathers on throat in contrast to *kigomaensis* are usually more or less extensively fringed with yellow. In females the chin and throat in contrast to *kigomaensis* are dark gray (instead of black), and yellowish-tinged toward apices.

Ploceus bicolor albidigularis new subspecies.

TYPE: ♂ ad (YPM no. 48279), Collector's no. 18918, collected by Gerd Heinrich 23 Aug. 1957—western Angola, district Calulo, Quitondo, 800 m alt.

DESCRIPTION: Differs from *amaurocephalus* Cabanis in both sexes rather distinctly in the whitish color of chin and throat, the feathers being pale gray (instead of black in males or dark gray in females in *amaurocephalus*) with whitish ends instead of yellowish tips, on the average smaller than *amaurocephalus*.

MATERIAL: All from type locality—1 ♂ ad, 4 ♀ ad; *weight*: ♂ 31 g, 4 ♀ 23.5-26 (24.9) g; *wing*: ♂ 84 mm, 4 ♀ 77-80 (78.2) mm.

REMARK: Two specimens (♂ and ♀) in the Chicago National History Museum from Cuanza Sul, Gabela, collected by Heinrich in 1954, were compared with the type series. The wings measure: ♂ 81 mm, ♀ 79 mm. Also the color of chin and throat feathers agrees more closely with this subspecies than with *amaurocephalus*.

Ploceus temporalis (Bocage).

MATERIAL. Northeastern Angola, Lunda, Upper Rio Luachimo, about 50 km north of Dala, 1300 m alt—3 ♂ ad, in breeding condition, 1 ♂ juv, 19 May 1958; *weight*: 3 ♂ ad 34.4-37 (35.8) g, ♂ juv 34.5 g; *wing*: 3 ♂ ad 79-84 (81.3) mm, ♂ juv 78 mm.

According to Traylor (1963) this species ranges "In a narrow band across the central Plateau from northern Huila and Huambo east through southern Lunda and northern Moxico to the Northern Rhodesian border."

On a rather dry, grassy plain, crossed by the upper part of the Luachimo River, on 15 May a colony of about 20-30 nests was found on an isolated bush-complex about 5 m high at the very edge of the river. All nests were built on limbs hanging far out over the surface of the swiftly flowing water. Numerous birds were present on the bushes and at their nests.

Ploceus superciliosus (Shelley).

MATERIAL. Northeastern Angola, Lunda, Lake Carumbo; and Kasai River, 900 m alt (new record)—1 ♂ ad, 2 ♀ ad, all in breeding condition, 21-29 March and 7 April 1958; *weight*: ♂ 23 g, 2 ♀ 21, 23 g; *wing*: ♂ 68 mm, 2 ♀ 65, 68 mm.

Traylor (1963) gives the range in Angola as "Cabinda, Congo, Cuanza Norte and Malange."

The habitat of this species is open marshes or river sides, surrounded by woods and covered by dense swamp-grasses, more than 2 m tall, particularly where the roots of these grasses form clumps elevated above the flooded ground.

Parmoptila woodhousei ansorgei Hartert.

MATERIAL. Northeastern Angola, Lunda, Luachimo River, 900 m alt (new record)—1 ♂ ad, 1 ♀ ad, both with gonads moderately enlarged, 30 April 1958; *weight*: ♂ 9 g, ♀ 9.5 g; *wing*: ♂ 50 mm, ♀ 51 mm.

According to Traylor (1963) these birds are "Known only from the type locality and Quiculungo, northern Cuanza Norte."

Pholidornis rushiae denti Ogilvie-Grant.

MATERIAL. Northwestern Angola, Cuanza Norte, near Bolongongo, 600 m alt—1 ♂ ad, 1 ♀ ad, both in breeding condition, 6 Nov. 1957; *weight*: ♂ 7 g, ♀ 7 g; *wing*: ♂ 50 mm, ♀ 48 mm.

The range is open, hilly savannah land, alternating with relicts of semi-tropical, secondary wood, the latter forming the habitat of the bird. On 30 October 1957 a seemingly almost completed nest was found. It was suspended about 6-7 m above the ground on the end of a branch of a small tree hanging downwards in the midst of a greater complex of secondary brushwood. The nest, enormous compared with the minute size of the builder, was a bulky mass of fibers and grasses with a small lateral entrance. When the nest was seen a second time, 6 days later, both birds were still busy completing it. The inner chamber was lined with feathers.

The iris of the male is red, of the female, gray. Legs and feet of both are bright yellow; the upper mandible is black, the lower mandible, yellow, with black blades and apex.

Serinus atrogularis lwenarum White, 1944.

MATERIAL. Northeastern Angola, Lunda, 60 km north of Sombo, 1100 m alt—2 ♂ ad, in breeding condition, 11-13 March 1958; *weight*: 11, 11.5 g; *wing*: 69 mm.

Both specimens agree with the original description but have the tawny flanks streaked and the black on throat extended to the middle of the breast. Traylor (1963) gives the range in Angola of this subspecies as "...from Huambo and extreme northern Huila to the Congo-Rhodesian border."

Serinus gularis benguellensis (Reichenow).

MATERIAL. Northeastern Angola, southern Lunda, Cacolo, 1400 m alt (new record)—1 ♂ juv, 21 Jan. 1958; weight: 16 g; wing: 82 mm.

Traylor (1963) gives the range in Angola as "The western highlands from northern Huila, Huambo and northern Bie; . . ."

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